



## **NON-WOVEN FABRIC BAGS MANUFACTURING UNIT ORIENTATION**

*Under Vyaparasetu Ecosystem by NGO-YOHYWA*



YOUTH WELFARE ASSOCIATION

## 1. PROJECT INTRODUCTION

The Non-Woven Fabric Bags Manufacturing Unit is an industrial-scale, eco-friendly, and government-aligned manufacturing project incubated under the **Vyaparasetu Ecosystem Enabling Partner (VEEP) Initiative** of the NGO - Youngsters of Hyderabad Youth Welfare Association (YOHYWA). This project is designed to empower aspirants to establish a **high-capacity, fully automatic non-woven fabric bag production facility** capable of producing market-ready eco-friendly carry bags, loop handle bags, D-cut bags, U-cut bags, box bags, shoe bags, shopping bags, medical-grade packaging bags, and customizable printed bags.

This manufacturing unit is aligned with:

- National bans on single-use plastics
- E-commerce packaging requirements
- Retail & FMCG demand for sustainable bags
- Hospitality sector procurement
- Corporate and event-based branding needs

Due to the increasing adoption of eco-friendly packaging, the non-woven bag industry is expected to grow at **18–22% CAGR** over the next 10 years, making this project a highly viable industrial opportunity.

## 2. SCOPE OF MANUFACTURING

The unit is designed to manufacture a complete range of **PP Spun Bond Non-Woven Bags** using fully automatic high-speed machinery that includes:

### Bag Types:

- D-Cut Carry Bags
- W-Cut (U-Cut) Bags
- Box Bags / Bottom Gusset Bags
- Non-Woven Loop Handle Bags
- Non-Woven Shoe Covers
- Medical Disposable Bags
- Food Delivery & Grocery Bags
- Customized Printed Bags for Corporate Branding

**Fabric GSM Range:**

- 30 GSM to 120 GSM  
Suitable for lightweight to heavy-duty packaging.

**Bag Sizes:**

- 5 inches to 28 inches  
Mass-customizable through PLC-controlled cutting mechanisms.

**Production Features:**

- High-speed ultrasonic welding
- Fully automatic folding, cutting, and sealing
- Optional inline printing facility
- Minimal manual intervention
- Uniform finishing & high durability

The setup supports large-volume industrial orders without the cost, waste, or pollution associated with plastic bags.

**3. OBJECTIVES OF THE INITIATIVE**

The primary objectives of setting up the Non-Woven Bag Manufacturing Unit include:

**1. Encouraging Sustainable Manufacturing**

To promote eco-friendly and biodegradable alternatives to plastic bags across modern retail, FMCG, and corporate sectors.

**2. Creating Entrepreneurial Platforms**

To provide aspirants with a subsidy-backed industrial setup that ensures long-term profitability with minimal operational complexity.

**3. Supporting Government Environmental Missions**

This project aligns with national and state-level bans on single-use plastics and eco-friendly packaging mandates.

**4. Boosting MSME Growth & Local Employment**

The unit provides direct employment to skilled and semi-skilled workers and contributes to the growth of regional MSME manufacturing clusters.

**5. Ensuring Market Linkages & Stable Demand**

Through YOHYWA's Vyaparasetu ecosystem, aspirants gain access to stable buyer networks, reducing early-stage market instability.

#### **4. PROJECT FEASIBILITY**

The feasibility of this manufacturing unit is supported by:

##### **Government-Driven Demand**

With single-use plastic bans in place across Indian states, the demand for non-woven bags has surged exponentially.

##### **Corporate Sustainability Goals**

Companies are shifting to eco-friendly packaging, increasing annual procurement quantities.

##### **Retail Sector Adoption**

Supermarkets, fashion outlets, pharmacies, and malls require non-woven bags daily.

##### **Institutional Orders**

Hospitals, events, government departments, and schools procure non-woven bags for distribution and branding.

##### **Low Manufacturing Cost + High Market Price**

Non-woven bags have:

- Low material cost
- High output volume
- Strong profit margins

##### **Repeat Purchases & High Consumption**

Non-woven bags are consumable items with constant reorders every month.

##### **Export Opportunities**

Countries in Africa, Middle East, and Europe import non-woven bags in bulk. This project remains profitable in all seasons and is recession-resistant due to its utility nature.

#### **5. ELIGIBLE ASPIRANT CRITERIA**

The aspirant must:

- Be 21+ years old

- Have a legally identifiable operational address
- Maintain a hygienic, dust-free production area
- Demonstrate financial transparency with banking records
- Follow NGO guidelines, branding norms, and compliance rules
- Not engage in parallel production of plastic-based banned items
- Maintain ethical manufacturing standards

Non-compliance may lead to termination under Vyaparasetu Enforcement Rules.

## 6. WHY THIS INDUSTRY / WHY NOW?

- India consumes over **2 crore non-woven bags per day**, with rising demand.
- Government emphasis on recyclable, reusable, eco-friendly packaging.
- Increasing online deliveries across all sectors.
- Retail modernization driving standard packaging adoption.
- Corporate gifting & event-based branding is booming.
- Hospitals increasingly use non-woven medical bags.

This combination creates a **once-in-a-decade opportunity** for stable manufacturing growth.

## 7. COMPLETE MACHINERY LIST

### 1. Fully Automatic Non-Woven Bag Making Machine

- PLC controlled system
- High-speed ultrasonic sealing
- Touchscreen interface
- Multi-size production capability
- Auto folding & gusseting

### 2. Automatic Loop Handle Attach Machine

For making loop handle and box bags.

### 3. U-Cut/D-Cut Punching Machine

To create standardized handle shapes.

### 4. Online/Offline Flexo Printing Machine

For corporate branding orders.

### 5. Air Compressor, Stabilizer & Power Backup Systems

### 6. Fabric Slitting Unit

## **7. Packing Table, Weighing Scale & Finishing Tools**

This combination ensures a fully integrated production floor with minimal manual operations.

## **8. RAW MATERIALS & SOURCING**

The primary raw material is:

### **Polypropylene (PP) Spunbond Non-Woven Fabric Rolls**

Available in various GSM levels, colors, and widths.

NGO-vetted suppliers ensure:

- BIS-certified quality
- GST-compliant invoicing
- Customizable GSM & color options
- Timely delivery
- Competitive pricing

Other consumables include:

- Ultrasonic bonding line materials
- Printing ink & plates
- Packaging straps & cartons

## **9. PRODUCTION WORKFLOW**

1. Fabric roll loading onto the machine
2. Automatic feeding & tension adjustment
3. Folding & gusseting operations
4. Ultrasonic side sealing
5. Cutting & bag shaping
6. Optional loop handle attachment
7. Offline or inline printing
8. Quality inspection
9. Counting, packing & bundling

The entire cycle is optimized for **high precision and mass production** with minimal manual labor.

## **10. SPACE, POWER & INFRASTRUCTURE REQUIREMENTS**

Minimum requirements:

- 1200–2000 sq ft of industrial space

- 440V 3-phase electricity
- Ventilated environment
- Vibrations-free flooring
- Fabric storage racks
- Fire extinguishers & safety kits
- Adequate loading-unloading area

#### **11. MANPOWER REQUIREMENT**

- Machine Operator (2)
- Helper/Assistant (2)
- Printing Technician (2)
- Packing & Sorting Staff (4)
- Accountant/Admin (1)

Total: **11–15 persons**

#### **12. QUALITY STANDARDS & CERTIFICATIONS**

- BIS standards for PP Spunbond Fabric
- Strength & tear-resistance tests
- Accurate GSM measurements
- Ultrasonic sealing uniformity
- Print quality & ink fastness
- Bag load-bearing capacity tests

#### **13. LICENSING & GOVERNMENT COMPLIANCE**

Aspirant must obtain and maintain:

- GST Registration
- MSME UDYAM Certificate
- Trade License
- Fire Safety NOC
- Pollution Control Validations (as applicable)

## **14. PROJECT COST**

**Total Project Cost: ₹50,00,000**

Including:

- Machinery
- Printing unit
- Raw material setup
- Branding
- Licensing
- Electrical
- Installation
- Contingencies

## **15. FINANCIAL STRUCTURE**

- NGO Subsidy Support: **₹10,00,000 (20%)**
- Aspirant Contribution: **₹40,00,000**

Subsidy is:

- Non-refundable
- Non-transferable
- Not treated as equity or partnership

## **16. REVENUE & PROFIT ESTIMATIONS**

A fully automatic plant typically produces:

- **2–4 lakh bags per month** depending on GSM & sizes.

Projected Monthly Revenue:

**₹6,00,000 – ₹9,00,000**

Expected Net Profit:

**₹2,00,000 – ₹3,35,000 per month**

Annual Net Profit:

**₹24 lakh – ₹40 lakh**

## **17. NGO SUPPORT FRAMEWORK**

NGO provides:

- Vendor tie-ups
- Technical onboarding
- Machinery setup



- Production training
- Branding support
- Market integration
- Legal compliance assistance
- Quarterly performance audits

## **18. ASPIRANT RESPONSIBILITIES**

Must ensure:

- Clean production environment
- Trained manpower
- Accurate record-keeping
- Compliance with NGO quality
- Prompt monthly reporting

## **19. MONITORING & REPORTING**

Includes:

- Weekly machinery performance review
- Monthly production & sales analysis
- Quarterly compliance filling assessment

## **20. LEGAL TERMS & CONDITIONS**

- Aspirant cannot misuse NGO branding
- No plastic bag manufacturing allowed
- Non-woven quality must meet standards
- Subsidy is non-refundable
- Disputes fall under Hyderabad jurisdiction

## **21. BUSINESS SUSTAINABILITY**

Non-woven bags are:

- Evergreen
- Government-supported
- Environmentally mandated
- Required across every retail sector

Ensuring long-term viability.

## **22. EXIT & ASSET TRANSFER POLICY**

- 6-month written notice required
- NGO holds reallocation rights upon violations
- Aspirant retains machinery ownership; brand/IP remain NGO-controlled

## **ANNEXURE – A**

### **PROJECT COSTING, INVESTMENT STRUCTURE & REVENUE MODEL**

This annexure provides the financial architecture, investment distribution pattern, and projected earnings for the Non-Woven Fabric Bags Manufacturing Unit established under Vyaparasetu Entrepreneur Ecosystem.

#### **A.1 Total Project Setup Cost (₹50,00,000)**

This includes all expense heads essential to establish and operationalize a fully automatic manufacturing facility:

<b>Cost Component</b>	<b>Estimated Cost</b>
Fully Automatic Bag-Making Machine	₹26,00,000
Automatic Loop Handle Machine	₹4,00,000
Flexo Printing Machine (Four Color)	₹8,50,000
Punching Machine	₹1,50,000
Electrical, Stabilizers & Air Compressor	₹2,00,000
Initial Raw Material (Fabric Rolls)	₹3,00,000
Installation & Transport	₹1,50,000
Branding, Packaging & Documentation	₹2,00,000
Licensing, Legal & Registration Charges	₹50,000
Contingency & Pre-Operational Expenses	₹1,00,000
<b>TOTAL PROJECT COST</b>	<b>₹50,00,000</b>

This cost structure is binding for subsidy evaluation and audit checks.

#### **A.2 Investment Contribution Structure**

<b>Investor Category</b>	<b>Contribution</b>
Aspirant Entrepreneur Share	₹40,00,000
NGO Subsidy Support (20%)	₹10,00,000
<b>Total Project Cost</b>	<b>₹50,00,000</b>

The subsidy is:

- Non-refundable
- Non-transferable
- Strictly tied to project utilization

### **A.3 Revenue Generation Streams**

The manufacturing unit earns through:

- Bulk supply to retail chains
- Wholesale distribution
- Corporate branding & printed bags
- Hospital & pharma-grade non-woven products
- Event merchandise supply
- Government tenders (where applicable)

### **A.4 Estimated Monthly Turnover & Profitability**

Production capacity of one fully automatic unit:

- **1,50,000 – 3,00,000 bags per month**

Monthly Turnover (Estimated):

- **₹6,00,000 – ₹9,00,000**

Net Monthly Profit (After Expenses):

- **₹2,00,000 – ₹3,35,000**

Annual Net Profit:

- **₹24 – ₹40 lakhs**

These projections may vary based on fabric GSM, order type, printing, manpower efficiency & market pricing.

## **ANNEXURE – B**

### **NGO MONITORING, SUPERVISION & IMPLEMENTATION FRAMEWORK**

This annexure describes NGO's supervisory authority and operational responsibilities.

#### **B.1 Implementation Stages**

1. Documentation & Licensing (GST, MSME & Trade License mandatory)
2. Vendor negotiations and final machinery procurement
3. Industrial installation, calibration & test runs
4. Production SOP training for workers
5. Trial batch verification and quality approval
6. Branding & packaging guidelines issuance
7. Market linkage onboarding
8. Quarterly evaluation audits

#### **B.2 Supervisory Rights**

NGO holds the right to:

- Inspect plant premises anytime
- Halt production on safety/quality breaches
- Evaluate subsidy utilization
- Recommend operational corrections
- Suspend project membership in case of violations

## **ANNEXURE – C**

### **LEGAL COMPLIANCE, REGULATORY OBLIGATIONS & OPERATING LICENSES**

The aspirant must comply with:

#### **Mandatory Statutory Licenses**

- GST Registration
- MSME UDYAM Certificate
- Trade License from Local Municipality
- Fire Safety Compliance
- Electrical Load Permissions
- Pollution Control Norms (where required)

#### **Mandatory Business Compliance**

- GST invoice for every sale
- Payroll compliance for staff
- ESI/EPF applicability for large staff
- Annual returns filing
- No unregistered materials/illegal goods

#### **Restrictions**

The aspirant is strictly prohibited from:

- Manufacturing banned plastic bags
- Producing or selling non-compliant packaging materials
- Misusing NGO branding or subsidy

Violations may lead to legal action.

## **ANNEXURE – D**

### **RAW MATERIAL SUPPLY CHAIN & PROCUREMENT FRAMEWORK**

#### **Primary Raw Material**

- PP Spunbond Non-Woven Fabric Rolls
- GSM Range: **30 to 120 GSM**
- Width & Color as per order requirement

#### **Vendor Requirements**

All raw materials must be purchased from:

- GST-compliant vendors
- BIS-certified manufacturers
- NGO-vetted supply channels

Consumables include:

- Printing inks
- Punching dies
- Ultrasonic accessories
- Packaging straps & cartons

NGO reserves the right to inspect invoices, quality slips & vendor credentials.

## **ANNEXURE – E**

### **RISK MANAGEMENT & MITIGATION PLAN**

<b>Risk Category</b>	<b>Mitigation Strategy</b>
Fabric Price Fluctuation	Bulk procurement through NGO-negotiated suppliers
Machinery Downtime	AMC contracts & preventive maintenance
Printing Quality Issues	NGO QC audits & plate-readjustment protocols
Market Saturation	Diversification into corporate branding, medical & export bags
Regulatory Changes	NGO updates on policy shifts & corrective training

Aspirant must adopt these mitigation frameworks to sustain long-term operations.



**ANNEXURE – F**

**PROJECT TIMELINE & EXECUTION SCHEDULE**

<b>Stage</b>	<b>Duration</b>	<b>Responsibility</b>
Licensing & Documentation	15–30 Days	NGO
Machinery Procurement & Dispatch	31–75 Days	NGO
Installation & Industrial Setup	76–90 Days	NGO + Aspirant
Staff Training & Operation SOPs	91-100 Days	NGO
Trial Batch Production	101-120 Days	NGO
Branding, Printing Plate Setup	121–130 Days	NGO
Market Integration	131-145 Days	NGO
Full Commercial Launch	146–180 Days	Aspirant

## **ANNEXURE – G**

### **QUALITY CONTROL & PRODUCTION STANDARDS**

#### **Quality Parameters**

- Accurate GSM measurement
- Strong ultrasonic sealing
- Uniform cutting & shape alignment
- Load-bearing capacity verification
- Printing clarity & ink fastness

#### **Inspection Protocols**

- Daily random batch inspection
- Weekly machine calibration
- Monthly QC audit by NGO
- Storage hygiene checks

Non-compliance may result in mandatory rework or production halt.

## **ANNEXURE – H**

### **NGO SUSTAINABILITY SUPPORT PACKAGE**

NGO provides:

- Seasonal corporate order channels
- Guidance for government tender participation
- R&D updates on new bag types
- Vendor negotiations for fabric sourcing
- Cost optimization assistance
- Market repositioning support in unstable conditions

This support is non-financial and advisory in nature.

## **ANNEXURE – I**

### **SOCIO-ECONOMIC IMPACT ASSESSMENT**

The unit creates:

#### **Direct Impact**

- 5–7 job opportunities
- Higher adoption of eco-friendly products
- Reduction of plastic pollution

#### **Economic Impact**

- Strengthening of MSME industrial clusters
- Increased business for fabric manufacturers
- Growth of local printing & logistics industries

#### **Social Impact**

- Compliance with national sustainability goals
- Contribution to a pollution-free environment

## **ANNEXURE – J**

### **BRAND & INTELLECTUAL PROPERTY RIGHTS (IPR)**

- All branding elements provided by NGO remain NGO property
- Printing plates, digital artwork & design guidelines cannot be altered without approval
- The aspirant cannot create parallel brands similar to Vyaparasetu-approved designs
- Unauthorized duplication may lead to immediate termination and legal prosecution

## **ANNEXURE – K**

### **EXIT POLICY, TERMINATION & TRANSFER CONDITIONS**

1. Aspirant must give **6 months' prior written notice** for exit.
2. NGO may terminate operations in case of:
  - Illegal manufacturing
  - Quality violations
  - Dishonest reporting
  - Misuse of brand
  - Policy breaches
3. Subsidy is **non-refundable under all circumstances**.
4. Machinery purchased remains aspirant's property but branding rights do not transfer.
5. NGO may reassign operational rights to another aspirant in case of termination.

## **ANNEXURE – L**

### **LONG-TERM VISION & EXPANSION ROADMAP**

- Expansion into multi-color flexo printing.
- Adding non-woven box bag making machines.
- Introducing laminated non-woven bags (premium segment).
- Export to Middle East & African markets.
- Supplying to hypermarkets, supermarket chains, fashion stores & pharma distributors.
- Achieving 100+ Vyaparasetu-linked eco-friendly packaging units by 2030.
- Becoming a state-level consortium for sustainable packaging solutions.